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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/827,195	04/19/2004	Po-Cheng Chen	250122-1490	2325
24504	7590	01/31/2006	EXAMINER	
THOMAS, KAYDEN, HORSTEMEYER & RISLEY, LLP 100 GALLERIA PARKWAY, NW STE 1750 ATLANTA, GA 30339-5948			WON, BUMSUK	
			ART UNIT	PAPER NUMBER
			2879	

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Please find below and/or attached an Office communication concerning this application or proceeding.

3/

Office Action Summary	Application No. 10/827,195	Applicant(s) CHEN ET AL.	
	Examiner Bumsuk Won	Art Unit 2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 16 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 16 recites the limitation "The flat plane display" in line 1. There is insufficient antecedent basis for this limitation in the claim. Even the claim is amended to "The flat panel display" which is broader term than "The plasma display panel", it would be rejected based on broad limitation followed by narrow limitation. For examining purpose, "The plasma display panel" will be assumed in place of "The flat plane display". Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3, 5, 7-9, 11, 13 and 15-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Li (US 2003/0066311).

Regarding claim 1, Li discloses a sealing structure (figure 2) with improved sealing strength (paragraphs 8-15 describes improving sealing), comprising: a first plate (44); a second plate (32) under and offset from the first plate; and a sealing layer (42) located between the first and second plate providing a seal therebetween, and further comprising a first region (figure 2, the region where the sealing layer and the first plate is attached to) contacting the first plate and a second region (figure 2, the region where the sealing layer and the second plate is attached to) contacting the second plate, wherein the first region extends at least to an outer edge (figure 2, the sealing layer is attached at the inside end of the first plate) of the underside of the first plate, and the second region extends at least to a boundary (figure 2, the sealing layer is attached at the inside boundary of the second plate) corresponding to the outer edge of the first plate.

Regarding claim 3, Li discloses the first plate (figure 2, 44) has a peripheral side surface (the surface of first plate which is vertical) and the peripheral side surface is planar.

Regarding claim 5, Li discloses the material of the sealing layer comprises a glass frit (paragraph 8).

Regarding claim 7, Li discloses the first plate is transparent (paragraph 24).

Regarding claim 8, Li discloses the sealing layer is formed to extend beyond a plane containing the outer edge and the boundary (figure 2, sealing layer (42) at the bottom is horizontally wider than at the top).

Regarding claim 9, Li discloses a sealing structure (figure 2) with improved sealing strength (paragraphs 8-15 describes improving sealing), comprising: a first plate (44); a second plate (32) under and offset from the first plate; and a sealing layer (42) located between the first and second plate providing a seal therebetween, and further comprising a first region (figure 2, the region where the sealing layer and the first plate is attached to) contacting the first plate and a second region (figure 2, the region where the sealing layer and the second plate is attached to) contacting the second plate, wherein the first region extends at least to an outer edge (figure 2, the sealing layer is attached at the inside end of the first plate) of the underside of the first plate, and the second region extends at least to a boundary (figure 2, the sealing layer is attached at the inside boundary of the second plate) corresponding to the outer edge of the first

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plate. Li also discloses the sealing structure described above can be used in plasma display panel (paragraph 8).

Regarding claim 11, Li discloses the first plate (figure 2, 44) has a peripheral side surface (the surface of first plate which is vertical) and the peripheral side surface is planar.

Regarding claim 13, Li discloses the material of the sealing layer comprises a glass frit (paragraph 8).

Regarding claim 15, Li discloses the first plate is transparent (paragraph 24).

Regarding claim 16, Li discloses the sealing layer is formed to extend beyond a plane containing the outer edge and the boundary (figure 2, sealing layer (42) at the bottom is horizontally wider than at the top).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Li (US 2003/0066311) in view of Kato (US 2002/0140349).

Regarding claim 2, Li discloses all of the claimed limitations except for the distance between the first plate and the second plate is 50 – 250 micro-meter.

Kato discloses in a plasma display device, the distance between front and rear substrate is 120 micro-meter (paragraph 135), for the purpose of having high emission efficiency (abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the distance between the front and rear substrate is 120 micro-meter disclosed by Kato in the sealing structure disclosed by Li, for the purpose of having high emission efficiency.

Regarding claim 10, Li discloses all of the claimed limitations except for the distance between the first plate and the second plate is 50 – 250 micro-meter.

Kato discloses in a plasma display device, the distance between front and rear substrate is 120 micro-meter (paragraph 135). The reason for combining is the same as for claim 2 above.

Claims 4 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Li (US 2003/0066311).

Regarding claim 4, Li discloses all of the claimed limitations except for the peripheral side surface of the first plate is cambered. However, the Applicant's specification does not disclose how cambered side surface makes difference from

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planar side surface which is claimed in claim 3. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have a cambered side surface of a plate in a sealing structure instead of a planar side surface for the purpose of having a design variation.

Regarding claim 12, Li discloses all of the claimed limitations except for the peripheral side surface of the first plate is cambered. However, the Applicant's specification does not disclose how cambered side surface makes difference from planar side surface which is claimed in claim 11. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have a cambered side surface of a plate in a sealing structure instead of a planar side surface for the purpose of having a design variation.

Claims 6 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Li (US 2003/0066311) in view of Ko (US 2004/0056597).

Regarding claim 6, Li discloses all of the claimed limitations except for the material of the sealing layer comprises an adhesive.

Ko discloses in an analogous art, the material of the sealing layer comprises an adhesive (paragraph 8), for the purpose of attaching two substrates.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the material of the sealing layer comprises an adhesive

disclosed by Ko in the sealing structure disclosed by Li, for the purpose of attaching two substrates.

Regarding claim 14, Li discloses all of the claimed limitations except for the material of the sealing layer comprises an adhesive.

Ko discloses in an analogous art, the material of the sealing layer comprises an adhesive (paragraph 8), for the purpose of attaching two substrates. The reason for combining is the same as for claim 6 above.

Contact information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bumsuk Won whose telephone number is 571-272-2713. The examiner can normally be reached on Monday through Friday, 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar Patel can be reached on 571-272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Bumsuk Won
Patent Examiner



JOSEPH WILLIAMS
PRIMARY EXAMINER